

SECTION 3 ROADWAY ALTERNATIVES

Three alternatives have been developed to improve traffic flow, increase pedestrian/bicycle safety, provide access to public transportation, and improve utilization of parking in Union Square. Various one-way/two-way traffic configurations are proposed for the area bounded by the Webster Street-Prospect Street intersection on the south, the Prospect Street-Somerville Avenue-Washington Street intersections on the east, and the Somerville Avenue-Bow Street intersection on the west.

Existing Conditions shows the existing one-way pair traffic pattern with Webster Street being one-way southbound and Prospect Street, one-way northeast bound. Union Square Plaza is indicated with the 42 existing parking spaces. Eleven bus stops are located throughout the Square.

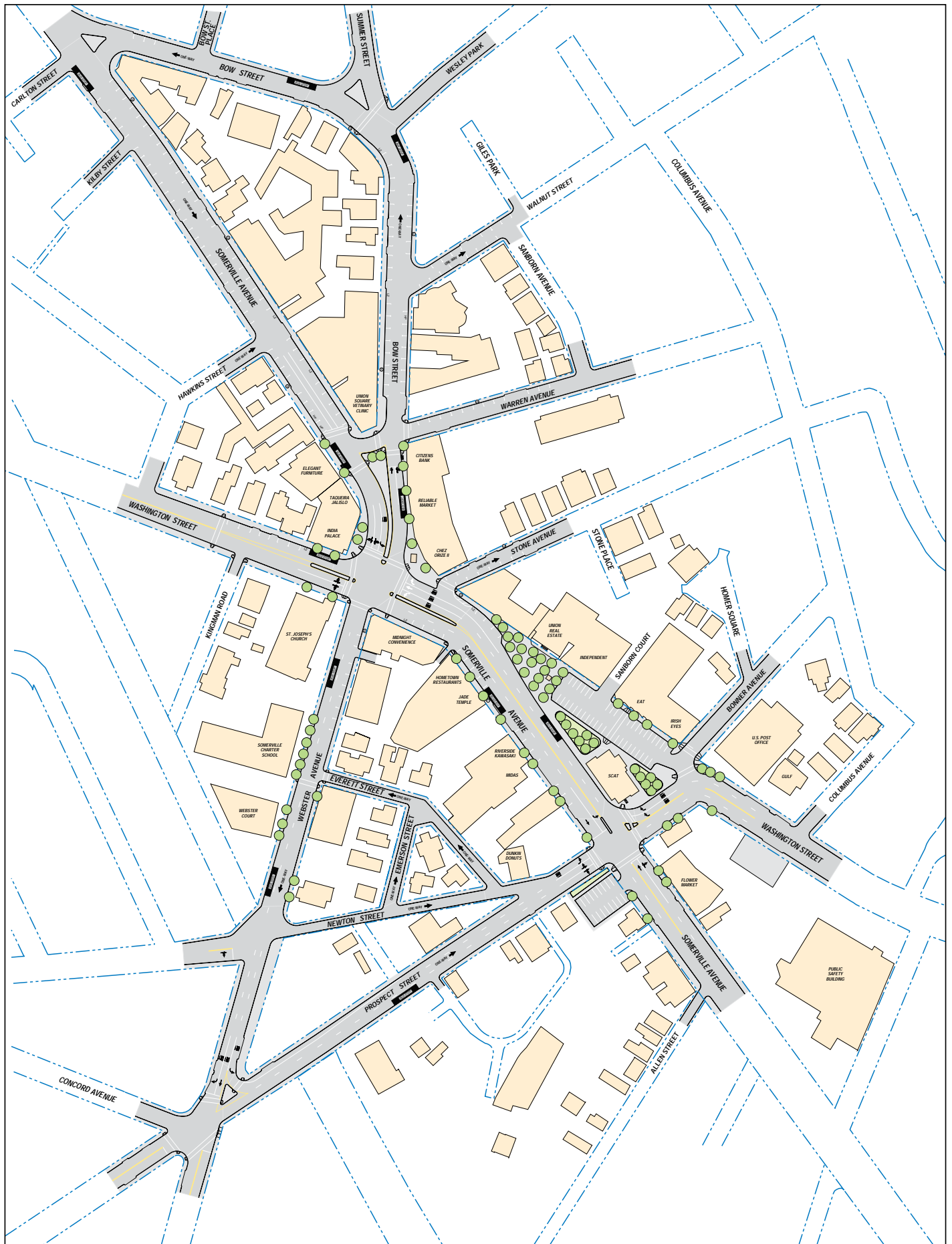
Alternatives may be considered a “box of parts.” It is possible (and likely) to select one design solution for the Webster / Prospect pair, one solution in the Square, and one on Somerville Avenue west of the Square. The selected alternative may also include the option of not making changes to the street layout (geometry) but in making changes to the signals or implementing pedestrian improvements.

Alternative 1 proposes two-way traffic on both Webster Street and Prospect Street and retains the existing traffic configuration within Union Square itself (with safety improvements and parking lot changes). The existing one-way pair on Bow Street/Somerville Avenue is retained.

Alternative 2 reverses the one-way traffic flow on Webster Street and Prospect Street and retains the existing traffic configuration within Union Square itself (with safety improvements and parking lot changes). The existing one-way pair on Bow Street/Somerville Avenue is retained.

Alternative 3 proposes two-way traffic on both Webster Street and Prospect Street and re-opens Washington Street to through traffic in the square. Washington Street and Somerville Avenue operate as one-way pairs. Somerville Avenue west of the square would be reduced in width but the existing one-way traffic flow on Bow Street/ Somerville Avenue is retained.

The following discusses specific issues and opportunities for each of the alternatives.



Alternative 1: Two-Way Webster Street / Prospect Street

Traffic

- Improves operations with Level of Service C at all three intersection locations in Square.
- “Free right” turn (no signalization) on Somerville Avenue westbound at Webster and Bow Street intersections improves traffic flow but makes it more difficult for pedestrians to cross square.

Pedestrian/Bicycle Safety

Crosswalks - Mid-block crossing near bus stops on Somerville Avenue in the Square improves pedestrian/bicycle safety. Curb extensions reduce the roadway width at crossing (same for Alternative 2).

Bike Lanes - Provides sufficient lane width on Somerville Avenue eastbound and westbound through the Square for a designated bike lane.

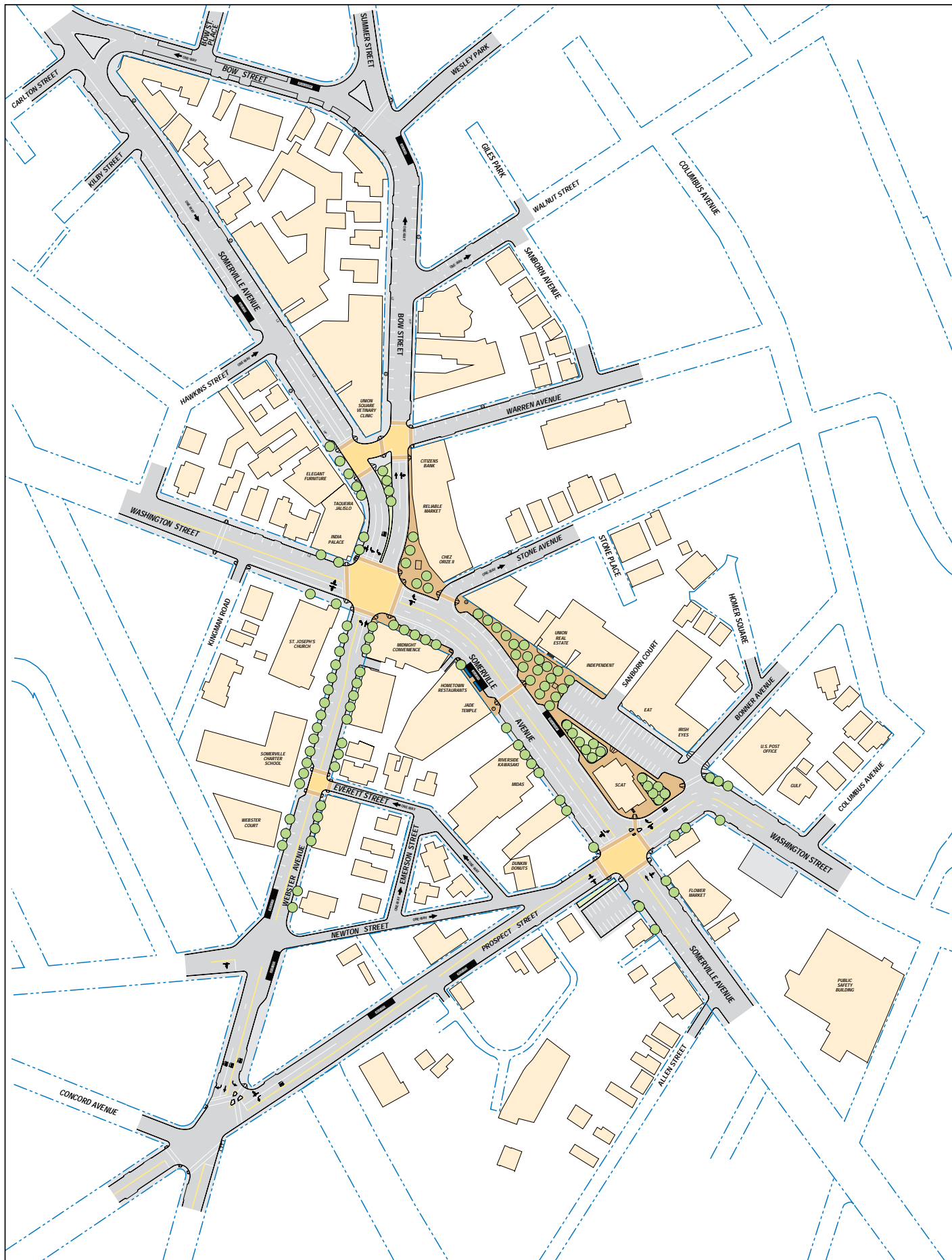
Urban Design - The existing plaza in the Square would become an island separated from storefronts by a parking lot. Limited area would be available for open-air festivals. The plaza island would not be suitable for café space.

Public Transportation

Bus Stops - Relocates and consolidates all 5 MBTA bus stops (CT2, 85, 86, 87, 91) including the senior bus service in the Square. Transfers are convenient. Enables those looking for the next bus to wait in one location.

Parking Issues – Reduces parking spaces within the Central Core of the Square from 82 to 70.

- In Square along Washington Street, westbound side – 32 total (48 current)
- In Square along Somerville Avenue, eastbound side – 11 total (13 current)
- Webster Street – 15 total (21 current)
- Prospect Street – 12 (0 current)



Alternative 2: Reverse One-Way Webster Street / Prospect Street

Traffic

- Improves operations with Level of Service D and E during the AM and PM peak hours, respectively, at the intersection of Somerville/Washington/Webster.
- Prospect/Webster intersection operates with LOS D and F in the AM and PM, respectively.
- Creates heavy left-turn volume at the Somerville/Washington/Prospect intersection from Somerville southbound to Washington eastbound. Intersection operates with LOS F in the AM and PM peak hours.

Pedestrian/Bicycle Safety

Crosswalks - Provides mid-block crossing near bus stops on Somerville Avenue in the Square. Curb extensions reduce the roadway width to be crossed (same as Alternative 1).

Sidewalks - Widens sidewalk along the south side of Somerville Avenue in the Square to accommodate the major bus stop and street cafes.

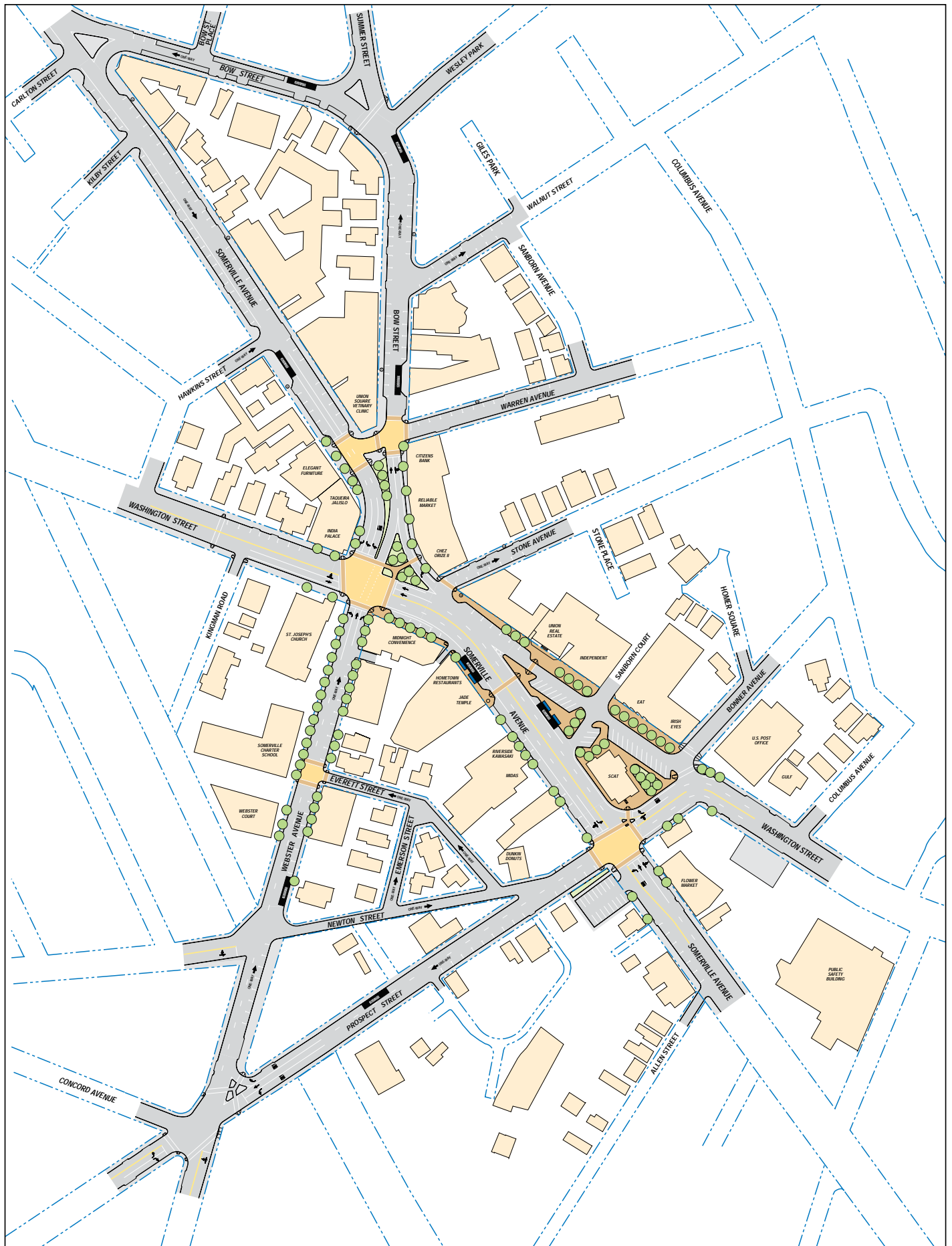
Bike Lanes - Provides sufficient lane width on Somerville Avenue eastbound and westbound through the Square for a designated bike lane.

Urban Design - The existing plaza in the Square would become an island separated from storefronts by a parking lot. Limited area would be available for open-air festivals. The plaza island would not be suitable for café space (same as Alternative 1).

Public Transportation - Reverses the current bus stop configuration by locating all five routes on the eastbound side of Somerville Avenue and leaving only two (routes 86 and 87) on the other side of the street (in the Square).

Parking Issues - Reduces parking spaces in the Central Core area from 82 to 70 spaces

- In Square and along Somerville Avenue (east side) – 32 total (48 current)
- West side of Somerville Avenue in Square – 11 Total (13 current)
- Webster Street – 15 Total (21 current)
- Prospect Street – 12 (0 current)



Alternative 3: Two-Way Webster Street and Prospect Street with Washington Street /Somerville Avenue One-Way Pair

Traffic

- Improves operations with Level of Service D and C during the AM and PM peak hours, respectively, at Somerville/Washington/Webster intersection.
- Somerville/Prospect intersection operates with LOS D and F in the AM and PM period, respectively.

Pedestrian/Bicycle Safety

Crosswalks - Pedestrians crossing Somerville Avenue and Washington Street in the Square cross traffic from only one direction on each roadway.

Sidewalks

- Widens sidewalk along Somerville Avenue eastbound in the Square to accommodate bus stop and sidewalk cafés.
- Widens sidewalk along Washington Street westbound in the Square to accommodate bus stop and sidewalk cafés.
- Widens sidewalks on Somerville Avenue west of the square, creating a boulevard or promenade with area for potential sidewalk cafes and sidewalk sales.

Bike Lanes - Provides sufficient lane width on Somerville Avenue eastbound and Washington Street westbound through the Square for a designated bike lane.

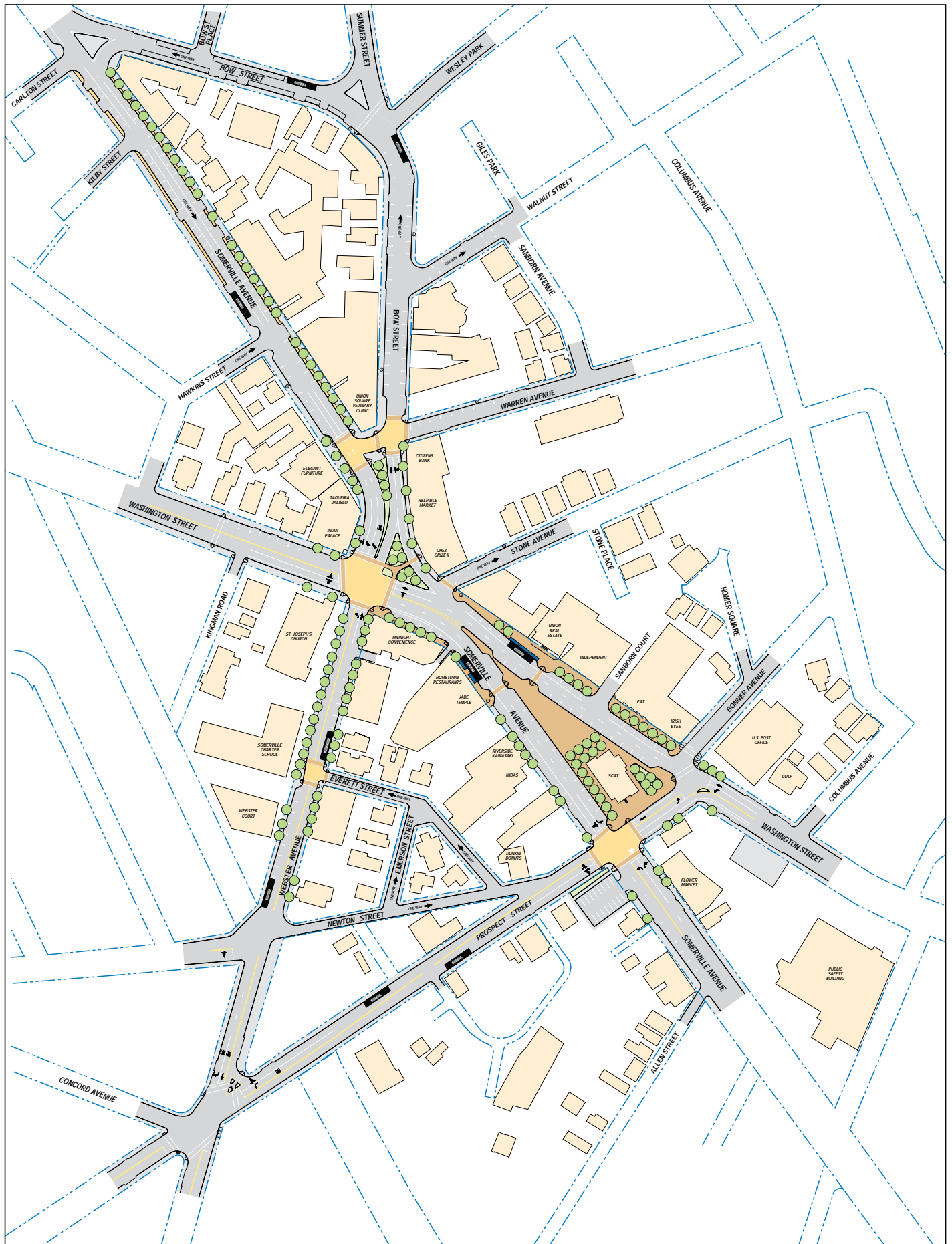
Urban Design - The plaza area would not serve as a bus stop or café area but would be available for open-air festivals and street fairs. Plantings would improve this open space.

Public Transportation - Creates a bus-oriented Square with consolidation of stops for all 5 MBTA bus lines (CT2, 85, 86, 87, 91) in one location. Stops on both sides of the Square serve all five MBTA routes and the Somerville senior bus.

Parking Issues – Reduces parking spaces in the Central Core area from 82 to 66 spaces

- Somerville Avenue – 26 Total (13 current)
- Washington Street – 26 Total (48 current in Square)*
- Webster Street – 14 Total (21 current)
- Prospect Street – 0 (0 current)

* Loss off-street parking lot replaced with parallel parking along both sides of Washington Street.



Public Workshop Summary (October 3, 2001)

The three alternatives described above were presented at the October 3 public workshop, held at the Public Safety Building. The meeting was rescheduled from September 19 to avoid conflicts with Somerville's candlelight vigil due to 9/11. Participants were primarily Union Square or Somerville residents and included a local business owner and local police.

Following an informal opportunity to review the plans, consultant staff members described the alternatives and presented information on traffic, urban design, public transportation, and parking. Following a brief question and answer session, participants were divided into three groups to participate in a facilitated workshop directed toward more in-depth analysis of one of three alternatives.

Breakout Groups

Attendees were assigned to one of three groups. Each group analyzed the pros and cons of one of the alternatives. During breakout sessions, a scribe filled out a Pros and Cons form on the alternative assessed. The following are comments based on each alternative.

Alternative 1

Pros

- Good pedestrian design at the Washington Street/ Bow Street/ Somerville Avenue/ Webster Street intersection
- Bus bump-out at Bow Street

Cons

- Difficult to access Washington Street from Union Square Parking Plaza and vice versa; Investigate the installation of a signal synchronized with other intersections, or close off the Washington Street end of Union Square parking lot
- Pedestrian crossings at Post Office is still difficult
- Would be difficult for parked cars to back out of parking spaces in the Plaza
- Concerned about the opening from the Plaza parking lot to Washington Street- need a signal to merge into existing traffic
- Need to increase the Union Square Plaza area, not decrease it
- Existing brick area in Plaza is difficult to walk on and push strollers
- Too many unconsolidated bus stops (Note: All buses can be consolidated in one location with this alternative.)

Suggestions/Comments

- Use the area in front of restaurants as a pedestrian refuge location and eliminate parking
- Trees in plaza are wilting – possible underground contamination; Use this area as a bus bump-out
- Somerville Avenue to the east of Prospect Street is underutilized
- Raised or textured crosswalks are needed at most all proposed crossings
- Use the property across from Dunkin Donuts, at the location of the existing public parking lot, to consolidate buses
- Should install a traffic signal at Washington Street/Columbus Avenue intersection synchronized with the Washington Street/ Somerville Avenue/ Prospect Street intersection to reduce the amount of accidents and difficulty merging into traffic

Alternative 2

Pros

- Wider sidewalks at Union Square Plaza
- Some bus stops near future commuter rail station
- Eliminates access to the Union Square Plaza from Washington Street

Cons

- Despite the one-way traffic pattern, there are concerns that motorists would use the plaza parking lot as a through street
- Design does not appear to reduce accidents involved due to double parking on Somerville Avenue
- Webster Street/ Newton Street crossing is dangerous due to excessive pavement width
- This alternative increases road pavement in the Square and reduces plaza space
- Webster Street/ Prospect Street intersection seems too difficult to cross
- 2-way, 4-lane midblock crossing on Somerville Avenue is too dangerous for pedestrians
- Somerville Avenue between Bow Street intersections is still one-way; Make Somerville Avenue a two-way road
- The one-way pattern within the Union Square Plaza parking lot still makes it difficult to maneuver
- Alternative eliminates the existing median at Somerville Avenue/ Washington Street/ Prospect Street and other intersections making it more difficult for pedestrians to cross
- Bus Route 91 inbound bus stop is too far from the Square
- Plans do not show bus stop of Route 85 at Wesley Park. It is important to retain this stop near a health plan local office
- There could be a conflict between residents and business parking on Bow Street. Concerned that meters could cause problems for residents (including the 50 residents living in the building at the corner of Somerville Avenue and Bow Street)

Suggestions/Comments

- Lake Street (J.J. Sullivan lot) could be a key area for surface or structured parking
- Suggestion: consider blocking the end of the parking lot near Bonner Avenue to eliminate cut-through's on Washington Street
- Suggestion: Consider structured parking at Citizens Bank
- Need a crosswalk across the entrance to the Plaza parking lot along Somerville Avenue

Alternative 3

Pros

- Parking on both sides of Somerville Avenue provides traffic calming
- One-way pair with curb extensions at intersections is good for traffic-calming
- Mid-block crossings are good since only two lanes of traffic are crossed at one time.
- Wider sidewalks in front of restaurants in Square lends to an increased sense of Main Street
- Pedestrian friendly design
- Best option for bike lanes
- Plan consolidates one bus stop on Webster Street and Prospect Street near rail line

Cons

- Loss of central gathering space
- Prefer that Somerville Avenue remain two-way and eliminate proposed Washington Street design
- Traffic should not be located adjacent to Washington Street restaurants in the Square.
- Traffic surrounds the Square – Traffic conflict at Plaza at Washington Street/ Bonner Ave intersection
- Relocate bus stop on Somerville Avenue eastbound in Square so that it does not block visibility of pedestrians at crossing (Note: All bus stops may be consolidated within the Square)
- Bow Street bus stop may cause pedestrian conflicts – consolidate or remove
- Reduce the radius at Webster Street/ Newton Street to make a shorter crossing
- The Bow Street bus stop located near Warren Avenue should be relocated to the north so as not to block the queue from the Square (Note: All bus stops may be consolidated within the Square)
- Loss of Plaza space is irreplaceable
- Loss of parking in Plaza lot is alright as long as it is replaced

Comment Sheets

Four comment sheets were received and stated the following:

Presentation

- One suggested that postcards advertising the meeting should be mailed to residents/businesses in the areas. (Note: OHCD maintains a list of about 400 residents and businesses. Notices are mailed for all meetings.)
- Need more general Question and Answer time
- Good presentation and good breakout sessions

General Comments on Alternatives Plans

- Traffic must be improved to aid economic revitalization in the Square
- Trees need to be proposed for both sides of every street in the plan (especially Somerville Ave)
- Union Square plaza should stay as is but more greenery needs to be added. No additional parking is needed in this lot
- Wider sidewalks and trees are needed on Washington Street in the Square.
- All crosswalks should be raised or textured
- Crosswalk signals should operate for longer than 25 seconds
- Need a flashing traffic signal at Washington Street/Bonner Ave intersection that is synchronized with the Washington Street/ Somerville Ave/ Prospect Street intersection
- Hybrid buses should be encouraged instead of diesel buses
- Subway stop is paramount to the revitalization of the Square
- Traffic assessments seemed inadequate, too few to be accurate
- Somerville Avenue should be two-way between the two Bow Street intersections
- Heavy trucking should be eliminated from Bow Street
- A bump-out at Webster Ave and Newton Street would increase pedestrian/bicycle safety at this crossing by reducing pavement width.

General Consensus

Groups were generally concerned about creating a balance between traffic and livability within the Square. Participants did not indicate which road pattern they preferred:

- Alternative 1: Two-Way Webster Street / Prospect Street
- Alternative 2: Reverse One-Way Webster Street / Prospect Street or
- Alternative 3: Two-Way Webster Street and Prospect Street with Washington Street /Somerville Avenue One-Way Pair.

Participants did indicate preferred Plaza elements, as indicated below.

Union Square Plaza

- Keep the Union Square Plaza generally, as it is, but develop more greenery. Do not reduce amount of Plaza space- make it more pedestrian friendly and park-like.
- No additional parking is needed in the Union Square Plaza lot. The area in front of restaurants should be used as a pedestrian refuge and as sidewalk café space.
- Wider sidewalks are needed in the Plaza

General Comments

(It should be noted that bus stops may be consolidated within the Square under any alternative.)

- Medians at Dunkin Donuts and others are missing from the existing condition plans; add these to the final design.
- Make Somerville Avenue two-way between Bow Street intersections.
- More trees, plantings and greenery are needed, especially along the major roadways, including Somerville Avenue west of the Square and Union Square Plaza.
- Most crosswalks should be raised or textured.
- Webster Street/ Newton Street crossing is dangerous due to excessive pavement width.
- Relocate bus stop on Somerville Avenue eastbound in Square so that it does not block visibility of pedestrians at crossing.

Union Square Business Interest Group (BIG) Meeting Summary (December 12, 2001)

The Union Square Business Interest Group (BIG) regularly meets with the Office of Housing and Community Development to discuss local issues. Edwards and Kelcey presented information on proposed alternatives at a regularly scheduled BIG meeting attended by several members.

Comments

- Liked recessed bus stops, noticed that buses held up traffic, caused accidents.
- Expressed need to retain or add to parking.
- Questioned accuracy of parking survey - % usage should not combine Washington Street lot with underutilized lot on Prospect and Somerville Ave.
- Poor synchronization of lights in Square.
- Poor light phasing at McGrath Highway and Washington Street (out of study area).

- Hard to get deliveries to come at specific times, loading zones can't just be morning.
- Post Office Parking Lot usage not enforced.
- No need for pedestrian oasis around SCAT, should be around businesses, sidewalks.
- Prospect Street dismal, need for trees.
- Need to find balance between pedestrian/vehicular space.
- Two-way flow on previous one-way streets is good.
- Better parking allocation.
- Make sure to save numbers in plaza/Washington Street lot.
- Liked idea of improving ingress and egress for plaza parking lot (possibly using entrance off Somerville Avenue).
- Find balance that works for future (i.e. Possible inclusion of transit) as well as present.
- If Plaza becomes open to intersection to the west, there should be some sort of calming device at pedestrian crossing points.
- Somerville Avenue is hard to cross for pedestrians.
- Plaza parking lot is the most visible, thus the most used.

City Agencies, January and February 2002

(Community Development, Fire, Police and Public Works, Traffic and Parking)

A presentation was made to city agencies of the 3 alternatives under consideration for review and comments. Edwards and Kelcey presented graphic illustration of the alternatives as well as a traffic simulation model.

Comments

- Signalization of Washington Street/Bonner Street positive
- Improved signalization of Somerville Avenue at Bow Street left turn/pedestrian signal positive
- Off-Street Parking lot (Washington Street) entrance/exit alternatives did not result in consensus.
- Signal Operations at Webster/Somerville/Washington.
 - Pedestrians are proposed to “walk” concurrently with traffic (will require approval from traffic department.)
 - Right turn treatment from Somerville Avenue to Bow Street as a slip turn (unsignalized) was a concern.
- Bus Stops
 - Relocation of bus stop away from key travel corridors was pointed out.
 - Alternatives for bus stop designs as “bulb out” designs were presented.
- Somerville Avenue between Bow Street and Washington Street had 2 alternatives. One narrowed roadway surface and created additional landscaping area. A concern was expressed about traffic flow and double parked cars.
- Fire and police favored two-way boulevard scheme because of access and the proposed redesign relocation of City’s public safety facility.
- Dunkin Donuts drivers often violate turn restrictions and create unsafe driving maneuvers.
- Pedestrian crossings should be improved with some type of traffic/visual treatment. Raised or textured crosswalks were discussed as a possibility.
- Landscape alternatives for the plaza area were too schematic to make a recommendation on a potential design alternative.